



PRIMARY/INTERMEDIATE

Objectives Students will be able to: (1) *identify and describe* waste material in their environment; (2) *compare* items of waste which can be useful when reused or recycled with items of waste which must be disposed. Students will improve their abilities to *express thoughts orally and in writing*.

Method Students discuss the difference between useful objects and waste objects; they *reason* and *rank* a variety of waste items from “most useable” to “least useable.” They discuss recycling and *classify* waste items brought from home as recyclable, reuseable or disposable.

Duration: two to three class periods.

Setting: classroom

Subjects: Science, Language Arts

Curriculum Reference: 2.2, 6.1

Preparation Gather the following items: aluminum can (half crushed), glass bottle, crumpled page of newspaper, plastic bottle (creased or dented), tin can, cigarette butt, piece of rope, or-

ange peel, bottle cap and an empty aerosol bug spray container or other household hazardous waste container. If you can, put sets of these items in bags, with enough bags for each group, if you decide to use groups.

Vocabulary hazardous waste, landfill, litter, recyclable, useful, waste

Handout *Rating Waste*

Procedures

1. Decide whether you want this activity to be accomplished individually or in small groups. If you choose the latter, divide the class or have them choose their own groups.
2. Arrange the items listed below on a demonstration table, or, if you made provisions to do so, give a set of items to each group and have students arrange items on tables so they can be seen and touched. Write the name of each item on the board. (Do not list in the order below as this list is divided into items which are typically recyclable and items which must usually be thrown out, a distinction relative to a later exercise for students.)

ALUMINUM CAN

GLASS BOTTLE

PAGE OF NEWSPAPER

PLASTIC POP BOTTLE

TIN CAN

CIGARETTE BUTT

PIECE OF ROPE

EMPTY BUG SPRAY CAN

ORANGE PEEL

BOTTLE CAP

Discuss how these waste objects were once useful and how they often end up as litter or in trash cans. Define the terms “litter,” “useful” and “waste”. Do not mention recycling at this point unless it is brought up by students.

3. Instruct each student or group of students to rate each item from the “most useable” to the “least useable” object. Groups can arrange items in rank order across the table. Have students present their reasoning in each case. The handout, *Rating Waste*, is to be used for this purpose when dealing with older students. (Reasoning might include the use of the object to make something or to keep something in. Items could be used as tools or in a game. In some cases, aesthetic ugliness, threats to health or injury potential might affect judgments about an

1

USEFUL WASTE

object's usefulness. Some students may reason based on recycling potential or even use in composting.) When completed, discuss answers with the class.

4. Discuss the concepts of reuse and recycling. Explain that objects which can be reused or recycled are useful. Go over each item again and discuss whether it is recyclable (useful) or a waste object. Those objects in the left column above are recyclable; those items in the right column usually end up being thrown away. But there is no definite answer, as someone could reuse an item such as a orange peel in a compost pile. Some students may suggest that bottle caps and rope could be reused as art projects. Check and see if any of the recyclables you have discussed are collected in your community so you can tell students about recycling opportunities available to them. Or, start a recycling drive at your school.

5. Ask students which item could be hazardous to their health (bug spray). Explain what hazardous means.

Evaluation Have students check to see what has been thrown away at home. Ask them to bring in one clean waste item, one clean recyclable item and a clean reusable item. When students bring these to class, have them put each item in different boxes explaining why they are doing so. Mark the box for recyclable items "Recycling Center" and the one for waste items "Landfill." Explain how reusing and recycling waste saves landfill space. Explain why we need to save scarce landfill space.

Directions: Rate items from the **MOST** useable to the **LEAST** useable. Write them down in rank order in spaces 1-10. Write down the reasons why you chose the first three items to be most useable and the last three items to be least useable.

MOST USEABLE

1. _____ Reason: _____

2. _____ Reason: _____

3. _____ Reason: _____

4. _____
5. _____
6. _____
7. _____
8. _____ Reason: _____

9. _____ Reason: _____

10. _____ Reason: _____

LEAST USEABLE

